COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

VALLEY REGIONAL OFFICE
P.O. Box 3000, Harrisonburg, Virginia 22801
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Located at 4411 Early Road, Harrisonburg, VA
www.deq.virginia.gov

Matthew J. Strickler
Secretary of Natural Resources

David K. Paylor
Director

Amy Thatcher Owens
Regional Director

June 27, 2019

Mr. Robert J. Johnston
Plant Manager
The LYCRA Company LLC
400 DuPont Boulevard
Waynesboro, Virginia 22980

Location: City of Waynesboro
Registration No.: 80517

Dear Mr. Johnston:

Attached is an administrative amendment to your permit to operate a synthetic fiber production facility pursuant to 9 VAC 5 Chapter 80, Article 1, of the Virginia Regulations for the Control and Abatement of Air Pollution. This permit has been amended to reflect the facility name change and change in ownership.

The permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all permit conditions carefully.

This permit approval shall not relieve The LYCRA Company LLC of the responsibility to comply with all other local, state and federal permit regulations.

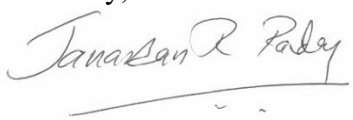
Issuance of this permit is a case decision. The Regulations, at 9 VAC 5-170-200, provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this permit is mailed or delivered to you. Please consult this and other relevant provisions for additional requirements for such requests. Additionally, as provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal to court by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
P.O. Box 1105
Richmond, Virginia 23218

In the event that you receive this permit by mail, three days are added to the period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia, at http://www.courts.state.va.us/courts/scv/rules.html, for additional information including filing dates and the required content of the Notice of Appeal.

If you have any questions concerning this permit, please contact Kelly Showalter of the Valley Regional Office at (540) 574-7843, or through electronic mail at kelly.showalter@deq.virginia.gov.

Sincerely,



Janardan R. Pandey, P.E.
Air Permit Manager

Attachment: Permit

c: File DEQ-VRO
Darren Shelhamer, Air Compliance Inspector (via email)
Susan Tripp, DEQ, Title V Program Specialist (electronic file submission)
Chief, Air Enforcement Branch (3AP13), U.S. EPA, Region III (electronic file submission)

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	The LYCRA Company LLC
Facility Name:	The LYCRA Company LLC
Facility Location:	400 DuPont Boulevard Waynesboro, Virginia 22980
Registration Number:	80517
Permit Number:	VRO80517

Effective Date	Amendment Date	Amendment Date	Expiration Date
July 27, 2017	July 17, 2018	June 27, 2019	July 26, 2022

Deputy Regional Director

June 27, 2019

Signature Date

Permit consists of 38 pages
Permit Conditions 1 to 88
Table of Contents consists of 1 page
Attachment A, DEQ Approved Emission Factors, 1 page

Table of Contents

Facility Information

Permittee
The LYCRA Company LLC
400 DuPont Boulevard
Waynesboro, Virginia 22980

Responsible Official
Robert Johnston
Plant Manager

Facility
The LYCRA Company LLC
400 DuPont Boulevard
Waynesboro, Virginia 22980

Contact Person
Mr. Brian Campbell
Sr. Environmental Specialist
540-949-2424

Plant Identification Number: 51-820-80517

Facility Description:

NAICS Code	Manufacturing Description
325220	Artificial and Synthetic Fibers and Filament Manufacturing

The LYCRA Company LLC owns and operates a synthetic fiber production facility located in Waynesboro, Virginia. The facility consists of three main areas:

The Powerhouse

The LYCRA Company LLC shutdown two of the three existing coal-fired boilers on January 9, 2014, and installed two natural gas-fired boilers on January 21, 2014, that utilize distillate oil and liquefied propane gas (LPG) as backup fuels. Each of the boilers (Ref. Boiler 4 and Boiler 5) has a maximum rated input heat capacity of 99 MMBtu/hr. The third existing coal-fired boiler was shut down on March 13, 2014, after the shake-down of the two new boilers (Ref. Boiler 4 and Boiler 5). Prior to shutdown of the three coal-fired boilers, the facility was classified as a major source of HAP; after the shutdown of the three coal-fired boilers, and the installation of the two natural gas-fired boilers, the facility is considered an area source of HAP.

The Spandex Production Facility

The spandex production facility, which produces A&AT LLC's LYCRA ®, ELASPAN ®, and LYCRA HyFit ® brands of spandex fiber, is comprised of three basic areas: polymer processing, spinning, and solvent recovery.

The Spandex Polymer Processing

In polymer processing, an aromatic di-isocyanate (Methylene bisphenyl isocyanate - MDI) is combined with glycol in a heated reactor to form the base polyurethane polymer, or "capped glycol". A polymer solution is then formed by the addition of a solvent, N, N-dimethyl acetamide (DMAc). At this point, the solution is called "diluted capped glycol". The diluted capped glycol solution is transferred to a second reactor where various reagents are employed to determine properties of the polymer such as chain length. The polymer is then filtered. As a final step, a variety of additives are mixed with the filtered polymer solution to provide properties to the finished yarn that the polymer alone would not give. Resistance to sunlight, whiteness retention and resistance to the effects of chlorine bleach are some of the desirable properties that the additives contribute to the final product. The polymer solution is then ready for spinning into spandex fiber.

Spandex Spinning

The spinning process involves flow of the polymer solution through a spinneret and into a heated, nitrogen inert spinning cell. The spinning process is actually an extrusion of the polymer into very fine, hair-like filaments. The spinning cells are kept neutrally balanced to slightly negative in pressure, and along with the nitrogen, volatilized DMAc is evaporated and removed from the spinning cell. Brine-cooled condensers condense the DMAc, which is then sent to a recovery area for purification and recycling. The nitrogen is returned to the spinning cell for re-use.

The filaments with the DMAc removed are gathered together to form strands of fiber. The fibers are wound onto tubes at the bottom of the spinning cell and these tubes are removed as they become full. The full tubes are inspected and packed into boxes for shipment or are wound onto a long metal beam for shipment.

Spandex Solvent Recovery System

Condensed DMAc is returned to the solvent recovery system for purification and recycling. Makeup DMAc is added to the system primarily to account for that which is lost to the atmosphere, solution waste, tar still purges, and waste treatment.

Emission Units

Equipment to be operated consists of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date**
Process: Powerhouse							
Boiler 4	B4	Natural gas fired boiler with liquefied propane gas (LPG) and distillate oil as back-up fuels	99.0 MMBtu/hr	Low-NOx Burners	--	NOx	NSR Permit dated 11/16/12
Boiler 5	B5	Natural gas fired boiler with LPG and distillate oil as back-up fuels	99.0 MMBtu/hr	Low-NOx Burners	--	NOx	NSR Permit dated 11/16/12
Process: Spandex Production Facility							
7-7 7-84 7-250 7-278 7-278B 7-291 7-292 7-349 7-564 7-604 7-615 7-633 7-634 7-653	7-7 7-84 7-250 7-278 7-278B 7-291 7-292 7-349 7-564 7-604 7-615 7-633 7-634 7-653	Spandex Polymerization Process (1983)	-	-	-	-	NSR Permit dated 11/16/12

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date**
7-29 7-66 7-67 7-68 7-76 7-83 7-247 7-247A 7-247B 7-303 7-304 7-309 7-348 7-652 7-654	7-29 7-66 7-67 7-68 7-76 7-83 7-247 7-247A 7-247B 7-303 7-304 7-309 7-348 7-652 7-654	Spandex Spinning Process (1983)	-	-	-	-	NSR Permit dated 11/16/12

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date**
8-42 8-43 8-44 8-51 8-52 8-53 8-59 8-76 8-78 8-79 8-80 8-81 8-86 8-87 8-88 8-89 8-90 8-108 8-193 8-194 8-195 8-201 8-202 8-206 8-208 8-209 8-210 8-211 8-216 8-217	8-42 8-43 8-44 8-51 8-52 8-53 8-59 8-76 8-78 8-79 8-80 8-81 8-86 8-87 8-88 8-89 8-90 8-108 8-193 8-194 8-195 8-201 8-202 8-206 8-208 8-209 8-210 8-211 8-216 8-217	Spandex Solvent Recovery Process (1983)	-	-	-	-	NSR Permit dated 11/16/12

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date**
Process: Reciprocating Engines							
FP-1	FP-1	Clarke Detroit Diesel Fire Pump Motor (Model DDFP-T6AT)	341 HP	-	-	-	-
FP-2	FP-2	Clarke Detroit Diesel Fire Pump Motor (Model DDFP-T6AT)	341 HP	-	-	-	-
G-1	G-1	Isuzu Diesel Engine Powered Back Up Generator (Model 6BG1 Isuzu Engine)	77 HP	-	-	-	-

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.
**Applicable Permit Date is NSR Permit dated November 16, 2012 as amended on July 16, 2018.

Powerhouse

1. **Limitations -** Oxides of nitrogen (NO_x) emissions from the boilers (Ref. Boiler 4 and Boiler 5) shall be controlled by low NO_x burners with flue gas recirculation and a NO_x performance of 30 ppmvd at three percent O_2 for natural gas. The low NO_x burners shall be installed and operated in accordance with manufacturer's specifications. Emission limits for NO_x are applicable at firing rates at or above 25 MMBtu/hr.
(9 VAC 5-80-110 and Condition 2 of the 11/16/12 NSR Permit)

2. **Limitations -** The approved fuels for the boilers (Ref. Boiler 4 and Boiler 5) are natural gas, LPG, and distillate oil. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 4 of the 11/16/12 NSR Permit)

3. **Limitations -** The distillate oil to be burned in the boilers (Ref. Boiler 4 and Boiler 5) shall meet ASTM D396 specification for numbers 1 or 2 fuel oil with a maximum sulfur content per shipment of 0.0015%.
(9 VAC 5-80-110)

4. **Limitations -** The total annual fuel throughput for the two boilers (Ref. Boiler 4 and Boiler 5) combined, shall not exceed the maximum allowable of any of the individual fuels listed in the table below:

Approved Fuel Type	Annual Quantity Allowed
Natural Gas	A(*) million cubic feet ($MMft^3$)
OR	
Distillate Oil	502,748 gallons
OR	
LPG	33,600 gallons

* The quantity of natural gas allowed (A) shall be calculated using the equation below:

$$(A) = \frac{(G) - [(B * E) + (C * F)]}{D}$$

Where:

A = The throughput natural gas for the consecutive 12-month period, in $MMft^3/yr$

B = The throughput of distillate oil for the consecutive 12-month period, in gallons/yr

C = The throughput of LPG for the consecutive 12-month period, in gallons/yr

D = The heat content of natural gas (1,020 MMBtu / $MMft^3$)

E = The heat content of distillate oil (138,000 MMBtu / 10^6 gal)

F = The heat content of LPG (91,500 MMBtu / 10^6 gal)

G = The maximum rated heat input capacity (combined) of the two boilers (1,734,480 MMBtu / yr)

Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months
(9 VAC 5-80-110 and Condition 6 of the 11/16/12 NSR Permit)

5. **Limitations -** Boiler emissions shall be controlled by proper operation and maintenance. Boiler operators shall be properly trained.
(9 VAC 5-80-110 and Condition 8 of the 11/16/12 NSR Permit)

6. **Limitations -** Except where this permit is more restrictive than the applicable requirement, the boilers (Ref. Boiler 4 and Boiler 5) shall be operated in compliance with the requirements of 40 CFR 60, Subpart Dc.
(9 VAC 5-80-110, 40 CFR 60 Subpart Dc, and Condition 9 of the 11/16/12 NSR Permit)

7. **Limitations -** Emissions from the operation of each boiler (Ref. Boiler 4 and Boiler 5) when firing natural gas shall not exceed the limits specified below:

Nitrogen Oxides (as NO_2)*	30 ppmvd at 3% O_2
Carbon Monoxide*	50 ppmvd at 3% O_2
Particulate Matter (PM)	0.74 lb/hr
PM-10	0.74 lb/hr
PM-2.5	0.74 lb/hr
Sulfur Dioxide	0.06 lb/hr
Volatile Organic Compounds	0.53 lb/hr

* Emission limits for NOx and CO are applicable at firing rates at or above 25 MMBtu/hr. Emission factors for NOx and CO when firing below 25 MMBtu/hr are provided in Attachment A.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 1, 2, and 5.
(9 VAC 5-80-110 and Condition 10 of the 11/16/12 NSR Permit)

8. **Limitations -** Emissions from the operation of each boiler (Ref. Boiler 4 and Boiler 5) when firing LPG shall not exceed the limits specified below:

Nitrogen Oxides (as NO_2)	14.07 lb/hr
Carbon Monoxide	8.11 lb/hr
Particulate Matter (PM)	0.76 lb/hr
PM-10	0.76 lb/hr
PM-2.5	0.76 lb/hr
Sulfur Dioxide	0.85 lb/hr
Volatile Organic Compounds	0.87 lb/hr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 2 and 5.
(9 VAC 5-80-110 and Condition 11 of the 11/16/12 NSR Permit)

9. **Limitations -** Emissions from the operation of each boiler (Ref. Boiler 4 and Boiler 5) when firing distillate oil shall not exceed the limits specified below:

Nitrogen Oxides (as NO_2)	0.10 lb/MMBtu
Carbon Monoxide*	75 ppmvd at 3% O_2
Particulate Matter (PM)	2.37 lb/hr
PM-10	0.72 lb/hr
PM-2.5	0.18 lb/hr
Volatile Organic Compounds	0.14 lb/hr

* Emission limits for CO are applicable at firing rates at or above 25 MMBtu/hr. Emission factors for CO when firing below 25 MMBtu/hr are provided in Attachment A.

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 2 and 5.
(9 VAC 5-80-110 and Condition 12 of the 11/16/12 NSR Permit)

10. **Limitations -** Emissions from the operation of each boiler (Ref. Boiler 4 and Boiler 5) when firing distillate oil shall not exceed the limits specified below:

Sulfur Dioxide	0.15 lb/hr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition 3.
(9 VAC 5-80-110)

11. **Limitations -** Combined emissions from the operation of both boilers (Ref. Boiler 4 and Boiler 5) shall not exceed the limits specified below:

Particulate Matter (PM)	7.03 tons/yr
PM-10	6.46 tons/yr
PM-2.5	6.46 tons/yr
Nitrogen Oxides (as NO_2)	338.3 tons/yr
Carbon Monoxide	33.12 tons/yr
Volatile Organic Compounds	4.68 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 1, 2, 4, and 5.
(9 VAC 5-80-110 and Condition 13 of the 11/16/12 NSR Permit)

12. **Limitations -** Combined emissions from the operation of both boilers (Ref. Boiler 4 and Boiler 5) shall not exceed the limits specified below:

Sulfur Dioxide	0.56 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 3, 4, and 5.
(9 VAC 5-80-110)

13. **Limitations -** Visible emissions from each boiler stack (Ref. B4 and B5) shall not exceed 10 percent opacity as determined by the 40 CFR 60, Appendix A, Method 9.

(9 VAC 5-80-110 and Condition 14 of the 11/16/12 NSR Permit)

14. **Limitations: Boiler MACT** – Except where this permit is more restrictive than the applicable requirement, the boilers (Ref. Boiler 4 and Boiler 5) shall be operated in compliance with the requirements of 40 CFR 63, Subpart JJJJJJ.
(9 VAC 5-80-110, 40 CFR 63 Subpart JJJJJJ)

15. **Limitations: Boiler MACT** – For each boiler (Ref. Boiler 4 and Boiler 5), the permittee shall comply with the applicable standards in 40 CFR 63.11201, and with each work practice standard, emission reduction measure, and management practice specified in Table 2 to 40 CFR 63, Subpart JJJJJJ. The permittee shall conduct an initial tune-up of each boiler no later than 61 months after the initial startup of each boiler (Ref. Boiler 4 and Boiler 5) as specified in 40 CFR 63.11214. The permittee shall conduct subsequent tune-ups of each boiler every five-years as specified in 40 CFR 63.11223 (b) and Condition 17.
(9 VAC 5-80-110, 40 CFR 63.11201, 40 CFR 63.11210 (g)

16. **Limitations: Boiler MACT** – Each boiler (Ref. Boiler 4 and Boiler 5) shall comply with the following work practice standards, emission reduction measures, and management practices:

    a. Minimize the boiler's startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures. If manufacturer's recommended procedures are not available, the permittee must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available.

    b. Conduct a tune-up of each boiler every five years, as specified in 63.11223, and Condition 15.

    (9 VAC 5-80-110, 40 CFR 63.11201(b), and 40 CFR 63 Subpart JJJJJJ Table 2)

17. **Limitations: Boiler MACT** – For each boiler (Ref. Boiler 4 and Boiler 5), the permittee shall comply with the applicable continuous compliance requirements in 40 CFR 63.11223, as follows:

    a. The permittee shall conduct a performance tune-up according to paragraph (b) of this Condition and keep records as required in 40 CFR 63.11225(c) to demonstrate continuous compliance. The permittee shall conduct the tune-up while burning the type of fuel that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up.

    b. For each boiler (Ref. Boiler 4 and Boiler 5), the permittee shall conduct a tune-up of the boiler every five years to demonstrate continuous compliance as specified in paragraphs (b)(1) through (7) of this Condition. Each five-year tune-up shall be conducted no more than 61 months after the previous tune-up.

        (1) As applicable, inspect the burner, and clean or replace any components of the

burner as necessary. The permittee may delay the burner inspection until the next scheduled unit shutdown, but the inspection must take place at least once every 72 months.

(2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.

(3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly. The permittee may delay the inspection until the next scheduled unit shutdown, but the inspection must take place at least once every 72 months.

(4) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.

(5) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

(6) Maintain on-site and submit, if requested by the DEQ, a report containing the information in paragraphs (a) through (c) below.

(a) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.

(b) A description of any corrective actions taken as a part of the tune-up of the boiler.

(c) The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.

(9 VAC 5-80-110 and 40 CFR 63.11223)

18. **Limitations: Boiler MACT** – For each boiler (Ref. Boiler 4 and Boiler 5), the permittee shall comply with the applicable requirements of the General Provisions of 40 CFR 63 Subpart A, as outlined in Table 8 to 40 CFR 63, Subpart JJJJJJ.
(9 VAC 5-80-110 and 40 CFR 63.11235)

19. **Monitoring -** The permittee shall obtain a certification from the fuel supplier with each

shipment of distillate oil to be burned in the boilers (Ref. Boiler 4 and Boiler 5). Each fuel supplier certification shall include the following:

a. The name of the fuel supplier;

b. The date on which the distillate oil was received;

c. A statement that the distillate oil complies with the American Society for Testing and Materials specifications for numbers 1 or 2 fuel oil;

d. The sulfur content of the distillate oil;

e. The method used to determine the sulfur content of the distillate oil; and

f. The higher heating value of the distillate oil.

Fuel sampling and analysis, independent of that used for certification, as may be periodically required or conducted by DEQ may be used to determine compliance with the fuel specifications stipulated in Condition 3. Exceedance of these specifications may be considered credible evidence of the exceedance of emission limits.
(9 VAC 5-80-110 and Condition 7 of the 11/16/12 NSR Permit)

20. **Recordkeeping -** The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

a. Monthly and annual throughput of natural gas, LPG, and distillate oil, for both Boilers 4 and 5. Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.

b. All fuel supplier certifications.

c. Emissions calculations sufficient to verify compliance with the annual emission limitations in Condition 11, calculated monthly as the sum of each consecutive 12-month period. Emissions shall be calculated using DEQ approved emission factors, as provided in Attachment A.

d. Records of Maintenance/Operating Procedures and training as required in Condition 5.

e. Scheduled and unscheduled maintenance.

f. Results of all stack tests, visible emission evaluations, and performance evaluations.

These records shall be available for inspection by the DEQ and shall be current for the

most recent five years.

(9 VAC 5-80-110 and Condition 15 of the 11/16/12 NSR Permit)

21. **Recordkeeping: Boiler MACT** – The permittee shall maintain the records specified in (a) through (d) of this Condition for each boiler (Ref. Boiler 4 and Boiler 5):

    a. As required in § 63.10(b)(2)(xiv), the permittee shall keep a copy of each notification and report that the permittee submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that the permittee submitted.

    b. The permittee shall keep records to document conformance with the work practices, emission reduction measures, and management practices required by § 63.11214 and § 63.11223 as specified in (1) through (3) below.

        (1) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.

        (2) Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.

    c. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in § 63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

    d. The permittee shall keep the records of all inspection and monitoring data required by § 63.11221 and § 63.11222, and the information identified in (1) through (6) below for each required inspection or monitoring.

        (1) The date, place, and time of the monitoring event.

        (2) Person conducting the monitoring.

        (3) Technique or method used.

        (4) Operating conditions during the activity.

        (5) Results, including the date, time, and duration of the period from the time the monitoring indicated a problem to the time that monitoring indicated proper operation.

        (6) Maintenance or corrective action taken (if applicable).

    The records must be in a form suitable and readily available for expeditious review. These records shall be available for inspection by the DEQ and shall be current for the most

recent five years.
(9 VAC 5-80-110 and 40 CFR 63.11225)

22. **Reporting** - Semiannual Fuel Quality Reports –The permittee shall submit fuel quality reports to the DEQ postmarked no later than the 30th day following the end of each semiannual period ending June 30th and December 31st. If no shipments of distillate oil were received during the semiannual period, the fuel quality report shall consist of the dates included in the semiannual period and a statement that no distillate oil was received during the semiannual period. If distillate oil was received during the reporting period, the report shall include:

    a. The dates included in the semiannual period.

    b. A copy of all fuel supplier certifications for all shipments of distillate oil received during the reporting period, indicating the supplier, volume of shipment, sulfur content (weight percent) and date the shipment was received.

    c. A signed statement from the owner or operator of the facility that the fuel supplier certifications represent all of the distillate oil received during the reporting period.

    d. One copy of the semiannual fuel report shall be submitted to:

        Associate Director
        Office of Air Enforcement and Compliance Assistance (3AP20)
        U.S. Environmental Protection Agency
        Region III
        1650 Arch Street
        Philadelphia, PA 19103-2029

    (9 VAC 5-80-110 and Condition 16 of the 11/16/12 NSR Permit)

23. **Reporting: Boiler MACT** – For each boiler (Ref. Boiler 4 and Boiler 5), the permittee shall comply with the applicable notification and reporting requirements in 40 CFR 63.11225, as follows:

    a. The permittee shall submit all of the applicable notifications in §§ 63.7(b), 63.8(e) and (f), and 63.9(b) through (e), (g), and (h).

    b. The permittee shall prepare, by March 1 of each year, and submit to the DEQ upon request, an annual compliance certification report for the previous calendar year containing the information specified in (1) and (2) below:

        (1) Company name and address.

        (2) Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this

subpart. Your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(a) "This facility complies with the requirements in § 63.11223 to conduct a five-year tune-up."

(b) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit."

(9 VAC 5-80-110 and 40 CFR 63.11225)

24. **Testing** - The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Test ports shall be provided when requested at the appropriate locations.
(9 VAC 5-80-110 and Condition 3 of the 11/16/12 NSR Permit)

25. **Testing -** Upon request by the DEQ, the permittee shall conduct additional performance tests from the two boilers (Ref. Boiler 4 and Boiler 5), to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the DEQ.
(9 VAC 5-80-110 and Condition 19 of the 11/16/12 NSR Permit)

26. **Testing -** As required by 40 CFR Part 60, Subpart Dc, section 60.47c(a), the permittee shall conduct additional Visible Emission Evaluations (VEEs) in accordance with 40 CFR Part 60, Appendix A, Method 9 or Method 22 on each boiler (Ref. Boiler 4 and Boiler 5) in accordance with the timeline established in 40 CFR 60.47c (a). Upon request by the DEQ, the permittee shall conduct additional VEEs from the two boilers (Ref. Boiler 4 and Boiler 5) to demonstrate compliance with the visible emission limits contained in the permit. The details of the tests shall be arranged with the DEQ.
(9 VAC 5-80-110 and Condition 20 of the 11/16/12 NSR Permit)

27. **Testing** - No less frequent than once each five-year period, and upon request by the DEQ, the permittee shall perform additional performance tests for nitrogen oxides from each boiler (Ref. Boiler 4 and Boiler 5), to determine compliance with the emission limits contained in Condition 7 that are applicable at firing rates at or above 25 MMBtu/hr. The test on one boiler will satisfy the testing requirements for the other boiler provided they are identical units. The details of the tests are to be arranged with the DEQ. The permittee shall submit a test protocol at least 30 days prior to testing. Samples taken as required by this permit shall be analyzed in accordance with 1 VAC 30-45, Certification for Noncommercial Environmental Laboratories, or 1 VAC 30-46, Accreditation for Commercial Environmental Laboratories. One copy of the test results shall be submitted to the DEQ within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-80-110)

Spandex Production Facility

The following requirements are derived from the minor NSR permit dated November 16, 2012. As used in Conditions 28 through 38, "Spandex production facility" includes all emission units indicated in the Emissions Units Table of this permit under the Spandex Production Facility heading.

28. **Limitations** - Volatile organic compound (VOC) emissions from the Spandex (Classic) spinning machines shall be controlled by brine-cooled condensers. The control equipment shall be provided with adequate access for inspection and shall be maintained by the permittee such that it is in proper working order at all times.
(9 VAC 5-80-110 and Condition 22 of the 11/16/12 NSR Permit)

29. **Limitations** - Emissions from Spandex (Classic) shall not exceed the limits specified below:

Volatile Organic Compounds	37.6 lbs/hr	164.7 tons/yr

Compliance with these emission limits may be determined as stated in Condition 37. Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-110 and Condition 24 of the 11/16/12 NSR Permit)

30. **Limitations** - Visible emissions from each Spandex production facility exhaust shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity.
(9 VAC 5-40-80, 9 VAC 5-50-80 and 9 VAC 5-80-110)

31. **Limitations** - The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to air pollution control equipment, monitoring devices, and process equipment which affect such emissions:

    a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

    b. Maintain an inventory of spare parts.

    c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

    d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided, including the names of trainees, the date of training and the nature of the training.

    (9 VAC 5-80-110 and Condition 42 of the 11/16/12 NSR Permit)

32. **Monitoring -** Each brine-cooled condenser shall be equipped with a device to continuously measure the outlet gas temperature. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when each brine-cooled condenser is operating. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times.
(9 VAC 5-80-110)

33. **Monitoring -** The permittee shall conduct a daily inspection of each brine-cooled condenser. The inspection shall include and record the following:

    a. The date, time and identification of the person performing each inspection;

    b. The results of each inspection, including an observation of the outlet gas temperature; and

    c. The maintenance performed, if required.

    d. If during the inspection, the outlet gas temperature is not within the manufacturer's recommended range, timely corrective action shall be taken such that the brine-cooled condenser resumes operation at the proper temperature.

    (9 VAC 5-80-110)

34. **Monitoring** - The permittee shall conduct visible emissions inspections on spandex production facility exhausts (7-7, 7-29, 7-66 through 7-68, 7-76, 7-83, 7-84, 7-247, 7-250, 7-278, 7-291, 7-292, 7-303, 7-304, 7-309, 7-348, 7-349, 7-564, 7-604, 7-615, 7-633, 7-634, and 7-652 through 7-654) in accordance with the following procedures and frequencies:

    a. At a minimum of once per week, the permittee shall determine the presence of visible emissions. If during the inspection visible emissions are observed from a stack(s), a visible emissions evaluation (VEE) shall be conducted for the stack(s) in accordance with 40 CFR Part 60, Appendix A, EPA Method 9. The VEE shall be conducted for a minimum of six minutes. If any of the observations exceed 20 percent, the VEE shall be conducted for a total of 60 minutes.

    b. All visible emissions inspections shall be performed when the spandex production facility is operating. In the event of a process shutdown for a consecutive period of one week or more, visible inspections may be discontinued until the process becomes operational.

    c. If visible emissions inspections conducted during 12 consecutive weeks show no visible emissions for a particular stack, the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week for that stack.

d. All observations, VEE results, process shutdowns and corrective actions taken shall be recorded.

(9 VAC 5-80-110)

35. **Recordkeeping** - The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

a. The monthly and annual hours of operation of Spandex (Classic). The annual hours of operations shall be calculated monthly as the sum of each consecutive 12-month period.

b. Results of quarterly performance tests as required in Condition 37.

c. Monthly and annual VOC emissions (in tons) from Spandex (Classic). The annual VOC emissions shall be calculated monthly as the sum of each consecutive 12-month period, using emission factors derived from the emission testing required in Condition 37, and calculation methods approved by the DEQ.

d. A log of weekly inspections and the results of all VEEs performed on the Spandex production facility exhausts as required in Condition 34.

e. A log of daily inspections of each brine-cooled condenser as required in Condition 33.

f. Results of all stack tests and visible emission evaluations.

g. Manufacturer's recommendations for control device operation.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 23 of the 11/16/12 NSR Permit)

36. **Testing -** The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Test ports shall be provided when requested at the appropriate locations.
(9 VAC 5-50-30, 9 VAC 5-80-110 and Condition 23 of the 11/16/12 NSR Permit)

37. **Testing -** The permittee shall conduct quarterly performance tests for VOC in accordance with NIOSH Method 2004 or A&AT LLC Lab Procedure SP-0905.211-01-ENV to demonstrate compliance with the emission limits contained in Condition 29. The tests shall be submitted in accordance with the following schedule:

Time Period Covered by Report	Report Due Date
January 1 – March 31	June 1
April 1 - June 30	September 1
July 1 – September 30	December 1
October 1 - December 31	March 1

Samples analyzed at an off-site environmental laboratory must meet the requirements of the Virginia Environmental laboratory Accreditation Program (VELAP) certification/accreditation requirements for the analytes being tested. The details of the tests are to be arranged with the DEQ.
(9 VAC 5-80-110 and Condition 26 of the 11/16/12 NSR Permit)

38. **Testing -** If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate methods in accordance with procedures approved by the DEQ.
(9 VAC 5-80-110)

Reciprocating Engines

39. **Limitations** - The emergency generators (Ref. FP-1, FP-2 and G-1) shall be operated in compliance with the requirements of 40 CFR 63, Subpart ZZZZ, except where this permit is more restrictive.
(9 VAC 5-60-90, 9 VAC 5-60-100, 9 VAC 5-80-110, 40 CFR 63 Subpart ZZZZ)

40. **Limitations** - At all times the permittee must operate and maintain emergency generators (Ref. FP-1, FP-2 and G-1), including monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.
(9 VAC 5-80-110 and 40 CFR 63.6605(b))

41. **Limitations** - The emergency stationary RICE (Ref. FP-1, FP-2 and G-1) must be operated in accordance with Condition 41.a and 41.b. Any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in a through b is prohibited

    a. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the DEQ for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

    b. Emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in Condition 41.a. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

    (9 VAC 5-80-110 and 40 CFR 63.6640(f))

42. **Limitations** - The diesel engines (Ref. FP-1, FP-2 and G-1) shall comply with the maintenance requirements specified in sections 1 (a) through (c) of Table 2c to Subpart ZZZZ:

    a. Change oil and filter every 500 hours of operation or annually, whichever comes first, or at an extended frequency if utilizing an oil analysis program as described in §63.6625(i) and Condition 44;

    b. Inspect air cleaner every 1000 hours of operation or annually, whichever comes first; and

c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first.

If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in this condition, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. The permittee must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable. (9 VAC 5-80-110, 40 CFR 63.6602, and 40 CFR 63, Subpart ZZZZ)

43. **Limitations** - During periods of startup the permittee must minimize the time spend at idle for the emergency engines (Ref. FP-1, FP-2 and G-1) and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.
(9 VAC 5-80-110, 40 CFR 63.6625(h), and 40 CFR 63 Subpart ZZZZ)

44. **Limitations** – The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Condition 42. The oil analysis must be performed at the same frequency specified for changing the oil in Condition 42. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the permittee is not required to change the oil. If any of the limits are exceeded, the permittee must change the oil within 2 business days of receiving the results of the analysis or before recommencing operation, whichever is later. The permittee must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.
(9 VAC 5-80-110 and 40 CFR 63.6625(i))

45. **Monitoring** - The facility shall install non-resettable hour meters on the emergency stationary RICE (Ref. FP-1, FP-2 and G-1). The hour meter shall be provided with adequate access for inspection.
(9 VAC 5-80-110 and 40 CFR 63.6625 (f))

46. **Monitoring** - The permittee shall develop a maintenance plan for the emergency generators (Ref. FP-1, FP-2 and G-1) that provides to the extent practicable for the maintenance and operation of each engine in a manner consistent with good air pollution control practice for minimizing emissions.
(9 VAC 5-80-110, 9 VAC 5-60-90, 9 VAC 5-60-100, and 40 CFR 63.6625 (e))

47. **Recordkeeping** - The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

    a. A copy of each notification and report submitted to comply with the requirements of 40 CFR 63 Subpart ZZZZ.

    b. Records of the maintenance conducted on the CI engines (Ref. FP-1, FP-2 and G-1) in order to demonstrate that each engine is operated and maintained according to the maintenance plan required by Condition 46.

    c. Records of the hours of operation of the CI engines (Ref. FP-1, FP-2 and G-1) that are recorded on a non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for non-emergency operation.

    These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
    (9 VAC 5-80-110, 40 CFR 63.6655)

Insignificant Emission Units

48. **Insignificant Emission Units** - The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
604A	#2 Fuel Oil	9 VAC 5-80-720 B	VOC, HAPs	75,000 gallon
617A	Diesel Fuel	9 VAC 5-80-720 B	VOC, HAPs	550 gallon
617B	Diesel Fuel	9 VAC 5-80-720 B	VOC, HAPs	550 gallon
618	Gasoline Storage Tank	9 VAC 5-80-720 B	VOC	6,000 gallon
7-564	128 Recycle Exhaust	9 VAC 5-80-720 B	VOC	
7-604	4th Recycle Exhaust	9 VAC 5-80-720 B	VOC	
7-615	Spinning Lag Fan	9 VAC 5-80-720 B	VOC	
7-633	Penthouse Stack	9 VAC 5-80-720 B	VOC	
7-634	Penthouse Vent	9 VAC 5-80-720 B	VOC	
L1	North Storage Tank	9 VAC 5-80-720 B	VOC	
L2	Supply Tank	9 VAC 5-80-720 B	VOC	
L3	Storage Tank	9 VAC 5-80-720 B	VOC	
L4	Storage Tank	9 VAC 5-80-720 B	VOC	
L5	Supply Tank	9 VAC 5-80-720 B	VOC	
L6	Supply Tank	9 VAC 5-80-720 B	VOC	
L7	Supply Tank	9 VAC 5-80-720 B	VOC	
L8	North Side	9 VAC 5-80-720 B	VOC	
L9	Supply Tank	9 VAC 5-80-720 B	VOC	
8-42	Dehydration Feed Tank "A"	9 VAC 5-80-720 B	VOC	
8-43	Dehydration Feed Tank "B"	9 VAC 5-80-720 B	VOC	
8-44	#1 DMAC Polymer Supply Tank	9 VAC 5-80-720 B	VOC	
8-51	#2 Utility Feed Tank	9 VAC 5-80-720 B	VOC	
8-52	#3 Utility Feed Tank	9 VAC 5-80-720 B	VOC	
8-53	Aqueous Waste Tank	9 VAC 5-80-720 B	VOC	
8-59	#2 DMAC Polymer Supply Tank	9 VAC 5-80-720 B	VOC	
8-76	#3 Batch Tank	9 VAC 5-80-720 B	VOC	
8-78	#2 Batch Tank	9 VAC 5-80-720 B	VOC	
8-79	#1B Batch Tank	9 VAC 5-80-720 B	VOC	
8-80	#1C Batch Tank	9 VAC 5-80-720 B	VOC	
8-81	#1A Batch Tank	9 VAC 5-80-720 B	VOC	

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
8-86	#3 Purification Column, #3 Tar Still Vent	9 VAC 5-80-720 B	VOC	
8-87	#3 Dehydration Column Vent	9 VAC 5-80-720 B	VOC	
8-88	#3 Purification Product Tank	9 VAC 5-80-720 B	VOC	
8-89	Refining Column Feed Tank	9 VAC 5-80-720 B	VOC	
8-90	#3 Tars Still, #3 Purification Column Scrubber	9 VAC 5-80-720 B	VOC	
8-108	#3 Purification Product Tank	9 VAC 5-80-720 B	VOC	
8-193	#3 Dehydration Scrubber	9 VAC 5-80-720 B	VOC	
8-194	#2 Tar Still Common, #2 Purification Column	9 VAC 5-80-720 B	VOC	
8-195	#2 Dehydration, #2 Tar Still Scrubber	9 VAC 5-80-720 B	VOC	
8-201	#4 Dehydration Feed Tank	9 VAC 5-80-720 B	VOC	
8-202	#3 Dehydration Feed Tank	9 VAC 5-80-720 B	VOC	
8-206	DMAc Segregation Tank	9 VAC 5-80-720 B	VOC	
8-208	#1 Utility Tank	9 VAC 5-80-720 B	VOC	
8-209	#3 Dehydration Surge Tank	9 VAC 5-80-720 B	VOC	
8-210	#1 Tar Still (Neutralization) Feed Tank	9 VAC 5-80-720 B	VOC	
8-211	#2 Tar Still (Neutralization) Feed Tank	9 VAC 5-80-720 B	VOC	
8-216	#5 Dehydration Feed Tank	9 VAC 5-80-720 B	VOC	
8-217	#2 Dehydration purge Tank	9 VAC 5-80-720 B	VOC	
604B	Diesel Fuel Storage Tank	9 VAC 5-80-720 B	VOC	6,000 gallon
ASH	Ash Handling	9 VAC 5-80-720 B	PM, PM-10, PM-2.5	

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
CTS	Process Cooling Towers	9 VAC 5-80-720 B	PM, PM-10, PM-2.5	
LABS	On Site Laboratories	9 VAC 5-80-720 B	VOC, HAPs	
	Remaining Recovery Tank	9 VAC 5-80-720 B	VOC	-
	Wastewater Treatment	9 VAC 5-80-720 B	VOC	-
	Interior, Exterior Maintenance	9 VAC 5-80-720 B	VOC	-
	Comfort Heating & Cooling	9 VAC 5-80-720 B	VOC	
	Tank/Equipment Clean-Out	9 VAC 5-80-720 B	VOC	
	Spill Collection Tanks	9 VAC 5-80-720 B	VOC	
	Water-Based Parts Washer	9 VAC 5-80-720 B	VOC	
	Welding Activities	9 VAC 5-80-720 B	VOC	
	Parts Washers	9 VAC 5-80-720 B	VOC	

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Permit Shield & Inapplicable Requirements

49. **Permit Shield and Inapplicable Requirements** - Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
None Identified	-	-

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

General Conditions

50. **Federal Enforceability –** All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

51. **Permit Expiration –** This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the DEQ consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

52. **Permit Expiration –** The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

53. **Permit Expiration –** If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

54. **Permit Expiration –** No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

55. **Permit Expiration –** If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

56. **Permit Expiration –** The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

57. **Recordkeeping and Reporting –** All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

a. The date, place as defined in the permit, and time of sampling or measurements.

b. The date(s) analyses were performed.

c. The company or entity that performed the analyses.

d. The analytical techniques or methods used.

e. The results of such analyses.

f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

58. **Recordkeeping and Reporting –** Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9 VAC 5-80-110 F)

59. **Recordkeeping and Reporting –** The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

(1) Exceedance of emissions limitations or operational restrictions;

(2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,

(3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”

(9 VAC 5-80-110 F)

60. **Annual Compliance Certification –** Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

    a. The time period included in the certification. The time period to be addressed is January 1 to December 31.

    b. The identification of each term or condition of the permit that is the basis of the certification.

    c. The compliance status.

    d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

    e. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

    f. Such other facts as the permit may require to determine the compliance status of the source.

    One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

    R3_APD_Permits@epa.gov

    (9 VAC 5-80-110 K.5)

61. **Permit Deviation Reporting –** The permittee shall notify the DEQ, within four daytime business hours after discovery, of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition 59 of this permit.
    (9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

62. **Failure/Malfunction Reporting –** In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the DEQ by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the DEQ.
(9 VAC 5-20-180 C)

63. **Severability –** The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

64. **Duty to Comply –** The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

65. **Need to Halt or Reduce Activity not a Defense –** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

66. **Permit Modification –** A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-190 and 9 VAC 5-80-260)

67. **Property Rights –** The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)

68. **Duty to Submit Information –** The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)

69. **Duty to Submit Information –** Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)

70. **Duty to Pay Permit Fees –** The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the DEQ by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

71. **Fugitive Dust Emission Standards –** During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

    a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

    b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

    c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;

    d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

    e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

    (9 VAC 5-40-90 and 9 VAC 5-50-90)

72. **Startup, Shutdown, and Malfunction –** At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20 E)

73. **Alternative Operating Scenarios –** Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.
(9 VAC 5-80-110 J)

74. **Inspection and Entry Requirements –** The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

    a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

    b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

    c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

    d. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

    (9 VAC 5-80-110 K.2)

75. **Reopening For Cause –** The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

    a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

76. **Permit Availability –** Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)

77. **Transfer of Permits –** No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)

78. **Transfer of Permits –** In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

79. **Transfer of Permits –** In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

80. **Permit Revocation or Termination for Cause –** A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-190 C and 9 VAC 5-80-260)

81. **Duty to Supplement or Correct Application –** Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

82. **Stratospheric Ozone Protection –** If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F and H.
(40 CFR Part 82, Subparts A-F and H)

83. **Asbestos Requirements –** The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

84. **Accidental Release Prevention –** If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

85. **Changes to Permits for Emissions Trading –** No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

86. **Emissions Trading –** Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

    a. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

    b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

    c. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

    (9 VAC 5-80-110 I)

State-Only Enforceable Requirements

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

87. **Limitations** – Emissions from Spandex (Classic) shall not exceed the limits specified below:

Formaldehyde	1.2 lbs/hr	5.2 tons/yr

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-110 N, 9 VAC 5-80-300 and Condition 46 of the 11/16/12 NSR Permit)

88. **Recordkeeping** – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

a. The monthly and annual hours of operation of Spandex (Classic). Annual hours of operation shall be calculated monthly as the sum of each consecutive 12-month period.

b. Average hourly formaldehyde emissions (in pounds) from Spandex (Classic), calculated as a monthly average, using calculation methods approved by the DEQ.

c. Monthly and annual formaldehyde emissions (in tons) from Spandex (Classic). Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period, using calculation methods approved by the DEQ.

d. Results of all stack tests and visible emission evaluations.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110 N, 9 VAC 5-80-300 and Condition 47 of the 11/16/12 NSR Permit)

DEQ Approved Emission Factors

Pollutant	Emission Factors *		
	Natural Gas	**Distillate Oil**	**Liquefied Propane Gas**
Nitrogen Oxides (as NO_2)	30 ppmvd at 3% O_2 (at or above 25 MMBtu/hr)	0.10 lb/MMBtu	0.1421 lb/MMBtu
	0.036 lb/MMBtu (at or above 25 MMBtu/hr)		
	0.073 lb/MMBtu (below 25 MMBtu/hr)		
Carbon Monoxide	50 ppmvd at 3% O_2 (at or above 25 MMBtu/hr)	75 ppmvd at 3% O_2 (at or above 25 MMBtu/hr)	0.081967 lb/MMBtu
	0.037 lb/MMBtu (at or above 25 MMBtu/hr)	0.059 lb/MMBtu (at or above 25 MMBtu/hr)	
	2.5 lb/hr (below 25 MMBtu/hr)	2.5 lb/hr (below 25 MMBtu/hr)	
Particulate Matter (PM)	0.0075 lb/MMBtu	0.024 lb/MMBtu	0.0077 lb/MMBtu
PM-10	0.0075 lb/MMBtu	0.0072 lb/MMBtu	0.0077 lb/MMBtu
Sulfur Dioxide	0.00059 lb/MMBtu	0.0015 lb/MMBtu	0.0086 lb/MMBtu
Volatile Organic Compounds	0.0054 lb/MMBtu	0.0014 lb/MMBtu	0.0087 lb/MMBtu

* Site specific emission data and factors (based upon stack testing) may be used in lieu of the default emission factors listed above